



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,427	06/15/2007	Daniel Mark Wallaker	61771.US	6468
408	7590	08/30/2011		
LUEDEKA, NEELY & GRAHAM, P.C. P O BOX 1871 KNOXVILLE, TN 37901			EXAMINER	
			GISHNOCK, NIKOLAI A	
ART UNIT		PAPER NUMBER		
3715				
MAIL DATE		DELIVERY MODE		
08/30/2011		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/596,427	WALLAKER ET AL.
	<b>Examiner</b>	Art Unit
	NIKOLAI A. GISHNOCK	3715

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 12 July 2011.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) An election was made by the applicant in response to a restriction requirement set forth during the interview on \_\_\_\_\_; the restriction requirement and election have been incorporated into this action.
- 4) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 5) Claim(s) 1-8 is/are pending in the application.
- 5a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 6) Claim(s) \_\_\_\_\_ is/are allowed.
- 7) Claim(s) 1-8 is/are rejected.
- 8) Claim(s) \_\_\_\_\_ is/are objected to.
- 9) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 10) The specification is objected to by the Examiner.
- 11) The drawing(s) filed on 22 October 2010 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)

Paper No(s)/Mail Date \_\_\_\_\_

- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

#### **DETAILED ACTION**

In response to applicant's reply filed 7/27/2011, Claims 1-8 are pending.

##### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al. (GB 2,252,656 A), hereinafter known as Miller.
  3. Miller discloses a dummy instrument for use in a simulator (a dummy endoscope for use in a simulating means, page 2, line 24 through page 3, line 4), the instrument comprising: a control body (control section, Figure 1, Item 3; see page 6, line 31 through page 7, line 1) with a user manipulatable angulation control (dummy angulation controls, Figure 1, Items 5, 6, 7, & 8, see page 7, line 2 through line 12), an insertion tube (Figure 1, Items 2; see page 6, line 31 through page 7, line 1) and an umbilical extending from the control body (umbilical cord, Figure 1, Item 4; see page 6, line 31 through page 7, line 1), and at least one angulation cable extending from the user manipulatable angulation control, and down the umbilical (umbilical cord is connected to the control section so as to appear identical to the umbilical cord of a real endoscope system, but in this instance containing electrical cables; see Figure 1, Items 9 & 10; see also page 6, line 31 through page 7, line 1), the umbilical being releasably attached to a main unit (the dummy endoscope is connected to an analog-to-digital converter by means of the umbilical cord and multi-way connector; Figure 2, Item 14; see page 7, lines 18 through 21; it is understood that the connector is able to be released from attachment, i.e., disconnected), a

motor within the instrument at a distal end of the umbilical to apply a variable force to the cable (frictional brake having motor, Figures 8 & 5, Item 45; as the umbilical and frictional brake are both connected to the computer via data bus {page 9, lines 29 through 33}, the motor brake is understood to be located at the distal ends of the umbilical and insertion tubes from the control body), and a position detector within the instrument to detect the angular position of the angulation control (control wheels connected to potentiometers, Figure 1, Items 5 & 6; see page 7, lines 13-17; see also page 1, line 29 through page 2, line 4; see also first and second shaft encoders, page 8, line 27 through page 9, line 11) [Claim 1].

4. Miller discloses wherein the position detector measures the rotation of the control [Claim 2] and the displacement of the cable [Claim 3] (the first and second shaft encoders convert the outputs of the respective encoders into signals representative of the longitudinal and rotational movement of the insertion tube relative to the fixture, page 9, line 34 through page 10, line 10) [Claims 2 & 3].

5. Miller discloses wherein the position detector is located at the distal end of the umbilical (positional feedback of the position of the tension control assembly drum {Figures 3 & 5, Item 43} is provided to the brake control unit from an angular position sensing transducer, page 9, lines 12-28; as above, because the umbilical and frictional brake are both connected to the computer via data bus {page 9, lines 29 through 33}, the motor brake is understood to be located at the distal ends of the umbilical and insertion tubes from the control body) [Claim 4].

6. Miller discloses wherein the instrument is provided with two pairs of angulation cables each pair forming a loop around the control body and around a respective motor at the distal end of the umbilical (typically there are two sets of control wires arranged to give motion in orthogonal directions, page 1, lines 29 through 31; see also loop at Figure 5, Items 43, 44, & 45; the cable is looped around the drum of motor) [Claim 5].

Art Unit: 3715

7. Miller discloses wherein means are provided to retain each of the loops (tension control assembly {Figures 3 & 5, Item 42} consists of a drum on which is wound a cable connected to the spring and rotatably adjusted such that by winding or unwinding the cable the extension of the spring is variable, all at page 9, lines 15 through 25) [Claim 6].

8. Miller discloses wherein a connector at the distal end of the umbilical is configured to provide a two-part release, allowing release to a partially released position in which the umbilical may be rotated relative to the base unit, but in which the weight of the umbilical is still supported by the base unit, and a second fully released position in which the umbilical is completely releasable from the base unit (multi-way connector, Figure 2, Item 14; it is understood that the umbilical cord cables {page 6, line 313 through page 7, line 1} can be rotated relative to the control body or cut and disconnected from the control body; no recitation in the claim is made either describing how or in what direction the umbilical may be rotated, or that the fully released position is easily or temporarily released) [Claim 7].

9. Miller discloses wherein the position of each angulation cable is sensed by a combination of a low resolution absolute position detector and a higher resolution incremental encoder (first and second shaft encoders, Figure 4, Items 32 & 34; it is understood that one encoder is "low resolution absolute position" and the other is "higher resolution incremental", as it is inherent that the encoders must have some specific resolution) [Claim 8].

***Response to Arguments***

10. Applicant's arguments filed 7/27/2011 have been fully considered but they are not persuasive. Applicant's "piecemeal" examination argument fails to overcome the fact that a new reference was considered and reads on the claims; the case does not become patentable merely because an alternate reference was previously considered; all the requirements of 35

USC §101, 102, 103, & 112 must be met. In response to the Applicant's argument that the rejection does not identify a showing of the claim limitation, claims are given their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969). See also *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). In the instant case, the phrases "down the umbilical" and "at a distal end of the umbilical" are not explicitly defined in applicant's disclosure. Examiner construes these phrases merely to mean "the other end of the umbilical from the instrument" (i.e., "the main unit"; See Figure 1, Items 101, 102, 103, 104, & 105). Regarding Miller, the "distal" end of the umbilical (Figure 2, Item 4) is the computer (Item 15). Miller clearly demonstrates an angulation control (Figure 2, Item 5); an angulation cable (Item 4); where the angulation cable extends "down the umbilical" to a motor (45) "at a distal end of the umbilical" (Figure 2, Items 17, & 18). In Miller, the motor is in the fixture (9:12-33); thus it is at the "distal end of the umbilical", as claimed. No *clear separation between the umbilical and the fixture* is claimed or disclosed; and no assumption is read into the claims that "down the umbilical" means that the cables are located inside the umbilical; in this case the insertion tube 2 and angulation cable 4 of Miller both terminate at the fixture, making it the "distal end". Because Miller meets every limitation, the claim is understood to be anticipated.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIKOLAI A. GISHNOCK whose telephone number is (571)272-1420. The examiner can normally be reached on M-F 11:00a-7:30p EST (8:00a-4:30p PST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan M. Thai can be reached on 571-272-7147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

8/27/2011  
/NIKOLAI A. GISHNOCK/  
Examiner, Art Unit 3715